



Joint Learning Initiative on Children and HIV/AIDS JLICA

Learning Group 1 – Strengthening Families

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THE COSTS OF INACTION¹

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¹ The author would like to acknowledge that this paper was inspired by the Cost of Inaction project at the FXB Center. Work on the FXB Cost of Inaction project was initiated by Albina du Boisrouvray several years ago, which long predates this paper. The FXB project on the cost of inaction is an indepth and comprehensive examination of the social and economic consequences of inaction in the short, medium and long terms. The author wishes to acknowledge the pre-existing FXB project which, because of its nature and scale of enquiry, will only be published in a number of years' time.

This paper was prepared for the Joint Learning Initiative on Children and HIV/AIDS (JLICA).

The Joint Learning Initiative on Children and HIV/AIDS (JLICA) is an independent, interdisciplinary network of policy-makers, practitioners, community leaders, activists, researchers, and people living with HIV, working to improve the well-being of HIV-affected children, their families and communities.

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Preface - Learning Group 1: Strengthening Families

The work conducted in Learning Group 1 was based on the fact that families, in all their many forms, are everywhere the primary providers of protection, support and socialization of children and youth, and families exert a very strong influence on children's survival, health, adjustment and educational achievement. This influence tends to be greater under conditions of severe strain, such as is caused by HIV and AIDS, particularly in the context of poverty.

In general, functional families love, rear and protect children and buffer them from negative effects. Functional families are those that have sufficient material and social resources to care for children, the motivation to ensure that children are nurtured and protected, and are part of a community of people who provide one another with mutual assistance. Family environments are especially important for young children. It is well established that multiple risks affect the cognitive, motor and social-emotional development of children and that the quality of parenting, assisted by intervention when needed, can ameliorate such impacts.

From the start of the epidemic, families have absorbed, in better or worse ways, children and other dependents left vulnerable by AIDS-induced deaths, illness, household and livelihood changes, and migration. Similarly, families have contributed, more or less successfully, to the protection of young people from HIV infection. Under the devastating effects of the epidemic, families need to be strengthened – economically, socially and with improved access to services – to enable them to continue, and to improve, their protection and support of children and youth. Families that neglect and abuse children need to be identified and social welfare services must be provided to them.

Families, extended kin, clan and near community are the mainstay of children's protection in the face of the AIDS epidemic - as they have been in poor countries under other severely debilitating social conditions, including war, famine and natural disaster. Only a very small proportion of AIDS-affected children are currently reached by any assistance additional to support they receive from kith and kin. The most scalable

strategy for children is to strengthen the capacity of families to provide better care for more children.

The co-chairs, secretariat, lead authors and stakeholders of Learning Group 1 were guided in the work undertaken in the Learning Group by the following key questions. By and large, these are the critical research, policy and programme questions currently being debated in the field.

1. On which children and families should we focus?
2. What evidence is available on which children are vulnerable and what can be done to help them, and how good is the research?
3. What aspects of the HIV/AIDS epidemic impact on children, how and why?
4. How are families changing as a result of adult illness and death associated with HIV and AIDS?
5. In what ways are children's health, education and development affected by the HIV/AIDS epidemic?
6. What does knowledge and experience of other crises teach us about the AIDS response for children and families?
7. What can we learn from carefully evaluated family strengthening efforts in fields other than HIV and AIDS that can be usefully applied in hard hit countries in southern Africa?
8. What programmatic experience has been gained in strengthening families in the HIV/AIDS field?
9. What promising directions are there for the future and what do they suggest?
10. What mistakes have been made and what now needs to be done?

These questions form the structure of the integrated report. As indicated in the Preface, detailed data and references are to be found in the respective LG1 papers.

Twelve detailed review papers constitute the primary evidence base for the conclusions drawn and the recommendations made by Learning Group 1. The papers, their authors in alphabetical order, and their affiliations are listed below.

List of authors, affiliations and paper titles

Authors	Affiliation	Title
Adato, M Bassett, L	International Food Policy Research Institute (IFPRI) – United States of America	What is the potential of cash transfers to strengthen families affected by HIV and AIDS? A review of the evidence on impacts and key policy debates
Belsey, M	Consultant – United States of America	The family as the locus of action to protect and support children affected by or vulnerable to the effects of HIV/AIDS: A conundrum at many levels
Chandan, U Richter, L	Human Sciences Research Council (HSRC) – South Africa	Programmes to strengthen families: Reviewing the evidence from high income countries
Desmond, C	Human Sciences Research Council (HSRC) – South Africa	The costs of inaction
Drimie, S Casale, M	International Food Policy Research Institute (IFPRI), Regional Network on AIDS, Food Security and Livelihoods (RENEWAL), Health Economics and AIDS Research Division (HEARD – South Africa	Families' efforts to secure the future of their children in the context of multiple stresses, including HIV and AIDS

Haour-Knipe, M	Consultant – Switzerland	Dreams and disappointments: Migration and families in the context of HIV and AIDS
Hosegood, V	London School of Hygiene and Tropical Medicine (LSHTM), Human Sciences Research Council (HSRC) – South Africa	Demographic evidence of family and household changes in response to the effects of HIV/AIDS in southern Africa: Implications for efforts to strengthen families
Kimou, J Kouakou, C Assi, P	Ivorian Centre for Economic and Social Research (CIRES), Family Health International (FHI) - Côte d'Ivoire	A review of the socioeconomic impact of antiretroviral therapy on family wellbeing
Madhavan, S DeRose, L	University of Maryland – United States of America	Families and crisis in the developing world: Implications for responding to children affected by HIV/AIDS
Mathambo, V Gibbs, A	Human Sciences Research Council (HSRC) – South Africa	Qualitative accounts of family and household changes in response to the effects of HIV and AIDS: A review with pointers to action
Sherr, L	Royal Free and University College Medical School – United Kingdom	Strengthening families through HIV/AIDS prevention, treatment, care and support
Wakhweya, A Dirks, R Yeboah, K	Family Health International (FHI) – United States of America	Children thrive in families: Family-centred models of care and support for orphans and other vulnerable children affected by HIV and AIDS

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1. Introduction

The Joint Learning Initiative on Children and AIDS (JLICA) is based on the premise that more needs to be done for children in the context of HIV and AIDS. This premise implicitly accepts two assumptions: firstly, that HIV and AIDS have negative implications for children and secondly, that actions can reduce these impacts. The first assumption is easy to accept, and the second is, to an extent, similarly easy to accept. No doubt HIV and AIDS have negative implications and that actions can reduce these, the question is to what extent can they be reduced and by what actions? This paper seeks to speak to this question by discussing what the costs of inaction are.

Very few of the many impacts experienced by children as a result of HIV and AIDS are inevitable. Children suffer as a result of a failure to adequately respond to the challenges posed by the epidemic. Even in high prevalence settings children can be shielded from much of the difficulties HIV and AIDS bring.

Families and communities, sometimes with external support, play a critical role in mitigating the impacts of the epidemic on children. They can provide a protective barrier which deflects blows, or minimise their impact, and a supportive nurturing environment that can help children recover from harm. If strong enough, and with sufficient access to services and support from communities, families can reduce the impacts of HIV and AIDS on children to negligible levels in most areas of impact.

In high prevalence, high poverty contexts families are frequently not strong enough and their ability to protect children is compromised. Families affected by HIV and AIDS often lack material resources, receive limited outside support and have poor access to appropriate services which, even when accessed, are frequently not of a high quality. In such contexts, the consequences of the epidemic for children can be very serious.

When examining the impacts of HIV and AIDS on children it is not enough to simply list consequences. Such listings can be misread as implying that consequences flow directly and inevitably from the appearance of the virus. Listings fail to recognise the role of context and the appropriateness of responses in shaping the final impact on children. Impacts do not flow directly from the epidemic and, while there are a wide range of

impacts on children associated with the HIV and AIDS epidemic, they all follow a similar pattern. The virus presents a challenge, which is either amplified or dampened by the context; then the challenge is, or is not, responded to. This pattern implies that a number of factors are critical in shaping impact. It suggests the importance of appreciating the interplay of the virus with the context. The worse the context, in terms of its amplification of impact, the stronger the response needs to be if the child is to be protected. The truth of the matter, however, is typically the opposite: the response is all too often the weakest when the amplification is greatest. This is why impacts are apparent. It is these impacts which are of most interest here, the impacts which occur as a result of a mismatch between challenge and response.

The costs of inaction are those impacts felt by children because the response was inadequate to counter the challenge when it could have dampened or negated it. To appreciate what these costs are, it is necessary to examine the pathways from challenge to child. It is necessary to examine the role of context in amplifying the challenge so as to note all the points of possible intervention. Furthermore, it is important to be clear on what responses could have reduced the challenge once it presented itself.

This paper focuses, therefore, on examining the pathways of impact, the role of context and the responses that potentially can mitigate this impact. This paper is not intended as a review of the impact literature. A number of these already exist (Foster and Williamson, 2000; Hunter and Williamson, 2000; 2002; Subbarao and Coury, 2004; Richter, Manegold and Pather, 2004; USAID, 2004). Other papers from the JLICA are updating these impact reviews (Sherr, 2008). This paper draws on understandings gained from this literature. Studies of impact have built up an understanding of the pathways through which challenges resulting from the epidemic become impacts for children. This work focuses on the pathways and nature of impacts, as this assists in identifying when such impacts can be attributed to inaction. The observed degree of impacts is context-specific and any discussion of these should include a discussion of this context. A review of the degree of impacts is beyond the scope of this paper but is covered in other JLICA papers in some detail (for example, Sherr, 2008).

While the same general pattern of challenge, context interaction and response exists, the specifics do differ for each impact. For this reason the discussions in this paper is broken into four parts:

- Child infection
- Adult illness and their death
- The consequences for care of adult death and
- Death outside the family.

Each of these parts is linked but separating the discussion is useful in order to focus attention on specific issues before they are drawn together at the end. It is clear that, for each of these parts, almost all costs for children are costs of inaction. There is, of course, the obvious argument that, if the socio-economic conditions – female poverty, male/female inequality, migrant labour systems and so on – which fed this epidemic had been addressed in the past, the epidemic would never have been this serious. If the infections of parents', caregivers' and other adults' whom children rely on had been prevented there would not be an impact on children.

It is correct to note that the impacts on children are a result of failed prevention. It is, however, also important to note that, even when adult prevention has failed, the impacts on children are, in most instances, not inevitable. Even when parents and caregivers are infected, steps can be taken to mitigate the impact on them and the children in their care. With access to quality services, mother-to-child transmission can be reduced to below 2% (Gray and McIntyre, 2007). Parents and caregivers with access to quality treatment can live for years and, as a result, care for their children into adulthood. Even if adults do become very ill or die, a protective, strong, functioning family can, to a large extent, mitigate the long-term implications for children of the illness, the death itself and the resultant loss of care which it may lead to. They can support children through the loss and provide a loving and supportive home in which the child can recover and go on to flourish. This is not to suggest that the loss itself becomes a negligible event. Losing a parent is typically a very painful experience, but it need not have an impact on children's long term development.

The impacts on children occur in highly-affected areas because of a failure to address the root causes of the epidemic: failed prevention, poor quality low-coverage prevention of mother-to-child transmission (PMTCT) programmes, inadequate adult treatment, and strained and often unsupported families. None of the impacts need occur, but they do and the costs of inaction are serious. Children's long-term potential can be severely affected by infection, increased poverty, emotional strain and, in some cases, a neglectful or abusive environment. These impacts should not be called the impacts of AIDS on children, as they are the impacts of our failings. Conceptualising the problem as the cost of inactions is an effort to move away from a focus on the impacts of HIV and AIDS on children without considering possible ways in which such impacts could have been avoided.

Before continuing to consider which costs are costs of inaction it is necessary to clarify a few issues, key among them being:

- Whose inaction and
- What costs?

Whose inaction?

Families and communities are responding, to the extent that they are willing and able, to the needs of children affected by HIV and AIDS. The different levels of government are providing services to varying extents both within and between countries. The question is not of the costs of total inaction but rather the costs of no further or inadequate action. To what extent can impacts be reduced by further action? This is where the question of 'whose' action becomes central. The following discussions highlight how further action by the family, the community and service providers can reduce impacts on children.

While the discussions consider actions across actors, the focus has to be on those external to the family and the family only as far as they are influenced by policy. The aim of the JLICA is to influence policy, it is highly unlikely that it could influence families directly and so the concentration is on possible interventions by government and civil society service providers and for this reason it is their inaction which is the focus. Through the course of the discussion it will be clear that external agents will have to

reach out to families and communities if they are to meaningfully address impacts. The point here is that the focus will be on the external agent's action or inaction in this regard as they are the players the JLICA hopes to influence. In terms of identifying pathways, everyone's inaction will be discussed, while – in terms of the costs of inaction – it will primarily be government and other external actors' inaction that will be considered. An impact will, therefore, be considered a cost of inaction if an action by an agency external to the family could have prevented the impact.

What costs?

There are a variety of costs that could be included, and the selection of which costs are considered can be important, as such framings influence the reading of implications for policy. If the costs to the economy are considered in terms of lost potential to contribute to the economy, then many of the private family costs will be ignored. A broader costing would consider social costs, which include those borne only by the child and their family, even if they have no implications for others or the economy as well as costs to the economy.

Considering impacts as costs suggests that there is a possibility for cost-benefit analysis. This is especially so if the costs considered are those born by the economy. It is logical to argue that, if the benefits of an action with positive social returns are such that the intervention pays for itself by way of benefits to the economy, then there is an argument for its implementation. Approaching the problem with cost-benefit analysis in mind does however, require some careful consideration.

While having social benefits and paying for itself provide an argument for an intervention there is not a clear argument for not undertaking an intervention if it does not pay for itself through benefits to the economy. If only benefits to the economy were considered there may be instances where the approach would imply that children from wealthy families are worth more than children from poor families. Children from wealthier families will have greater access to education and as a result will become, from a monetary perspective, greater contributors to the economy. Their loss therefore will be associated with a higher figure suggesting a greater value. What is more it should be kept in mind that some actions may pay for themselves in economic terms, but have

larger social costs. That an intervention pays for itself is alone not enough to argue for its implementation.

Arguably the costs could be expanded to consider social costs, but this too could be considered somewhat crude. Many of the impacts experienced by children, and discussed in this paper, involve the violation of their basic rights. This alone should be enough to warrant intervention, if interventions can prevent such violations.

While it is important to note these cautions in this initial paper, they are not a major concern here. There will be no effort made here to quantify costs to the economy or society in general. Here the term 'costs' is used to link impacts to inaction, so the impacts will be listed as the costs. A larger project is currently being developed that will attempt to provide quantifications. Quantification of costs will allow them to be examined alongside the costs of interventions, so as to determine if such interventions will pay for themselves. This will not be argued to be the criteria for selection, somehow overriding the rights-based approach, but rather as an added argument for policy makers, who do not always respond to rights-based arguments because of their concern over limited resources. As a first step in this larger project, it is necessary to identify the impacts that should be considered as the costs of inaction, which is what this paper intends to do. It, therefore, considers all costs, or what are referred to as social costs, and not only those impacts that will have a cost for the economy. It is also important, even at this stage, to consider the distribution of costs across the various actors involved in the response, as different interventions may not only alter the total cost but also its distribution. It may not always be appropriate to consider an equal cost to be of equal importance when it is borne by different actors.

Approach

This paper is not based on new primary research. As part of the Joint Learning Initiative on HIV/AIDS and Children, it aims to draw together insights from previous work. Literature was collected through a review of a data base of publications on HIV and children held by the Human Sciences Research Council (HSRC). This was supplemented with internet and literature database searches. Preference was given to more recent work. The research covered has been drawn from three areas: studies that look

specifically at impacts on children; those that look at household impacts; and those that consider a macro perspective. The bulk of the work in this area has seemingly focussed on describing the household situations and impacts on children. Using the insights gained from these efforts, this paper seeks to locate the discussions in a conceptual framework of family functioning, considering the interaction between human and financial resources and outside support.

Within this framework, the focus of the paper is on the child within the context of the family. The vast majority of children are cared for within the family prior to, and following, parental or caregiver illness and loss (Hosegood, 2008). Understanding how the family interacts with the challenges faced is important when considering responses. Moreover, understanding how the family's condition prior to any impact plays a major role in determining how much of that impact is felt by the child and how much is absorbed by the family is critical. The household and the family are not always the same thing. Given the nature of the studies of impact, typically the household is surveyed and treated as the unit of analysis. In the following discussion the terms 'household' and 'family' are at times used interchangeable. Where this might be a problem, attention is drawn to the differences.

The discussions which follow and the literature on which they draw are primarily concerned with high prevalence contexts. The framework on which they are based is, however, not context specific in this sense and many of the issues raised are transferable to low prevalence contexts. The focus on a conceptual framework highlights the importance of context in determining impact. Therefore while issues are transferable impacts and necessary responses are not always so.

2. Conceptual framework

If the interactions between challenge and context are to be appreciated, it is necessary to formulate a conceptual framework. The conceptualisation of the problem also plays an important role in shaping perceptions of what the required response is. As the paper considers the costs of not acting, it is important to identify what are appropriate responses and what potential they have to prevent or reduce impacts on children.

The problem could be conceptualised by way of a child being viewed as an individual with met and unmet needs. Such a view, however, ignores the manner in which those needs are, or are not, met. Concentrating on a list of needs, independent of how care is produced and managed, can lead to inefficiencies in response design. For example, viewing a child as hungry and poorly clothed may prompt a focus on getting food and clothing to the child. In some instances this may be correct, but in others not. If the child is seen as part of a family and it is investigated why it is that the family is failing to provide adequate care then alternatives, which may well be more efficient, effective and sustainable in the long-term than direct provision of goods, can be identified. It is important to identify efficient and effective responses, as these have the most potential to reduce impacts and so shift more of the impacts into the category of costs of inaction as considering less effective interventions will underestimate the potential to reduce impacts.

Considering the child in a care-giving setting prompts consideration of what is needed for efficient and effective care and how this compares with what is being provided. The question becomes: what is needed for sustainable efficient and effective care within the family setting? This requires a conceptualisation of the problem in a family framework. There are, of course, children living outside of family settings. These children are included in this paper but they are generally seen as an outcome of the problem of over-extended families and so the discussion of how families become overly extended is also relevant in regard to the prevention of such outcomes.

In this paper, it is assumed that there are six components to family care, which interact to determine the extent to which the needs of children are met. These consist of:

- Intention to care
- Power relations in the household
- Human resources
 - Time
 - Child care knowledge
 - Child care skills
- Financial resources
- Opportunity for child to form significant and secure bonds with caregiver(s).

- Access to appropriate quality services and social support.

Without positive intentions to care for the child, no care will be provided. Intentions here refer primarily to motivations to care. Where these motivations come from is an important question when considering changing child care arrangement or the movement of children as intentions may be affected by the gender of the child, their age and their relatedness and as such may play a role in shaping discrimination. Intentions alone are, however, not enough. For intentions to be translated into care they require human and financial resources. These are not, of course, mutually exclusive as human resources influence financial resources. The extent to which resources in the household can be directed towards care are shaped by the power relations within the family. Of particular importance is the power of those with the intention to care to gain access to household financial and human resources.

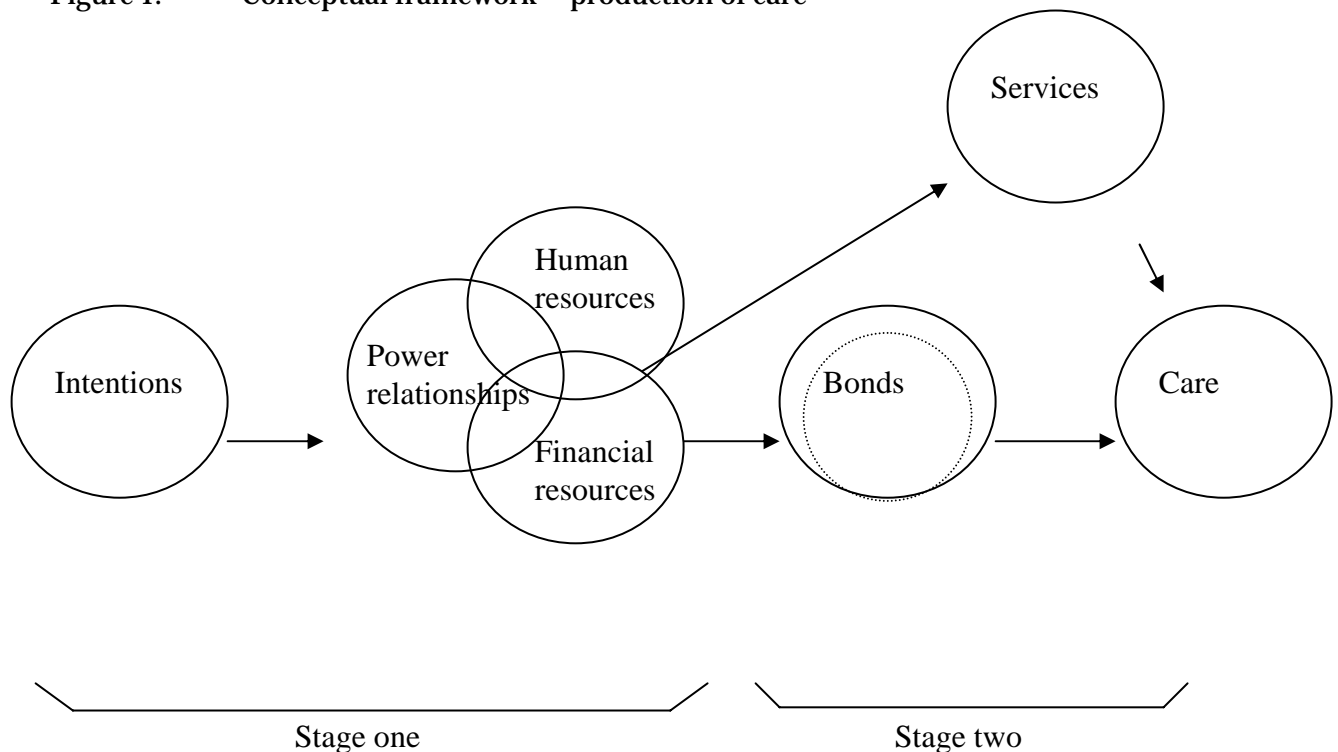
Allocating human and financial resources can be characterised as determining the level of care provided. The effectiveness of a given level of care is influenced by the environment in which it is delivered. The opportunity for the child to form significant and secure bonds and the level of access to services, the quality of these services and access to other forms of social support are all important. Bonds are distinct from intentions in that they require the stable presence of an adult, these are particularly important for younger children. A caregiver may well have positive intentions but be living in a different household away from the child in order, for example, to hold down a job. Human and financial resources directed towards the child, when they don't have this opportunity to form significant and secure bonds, will be limited in their impact. The bonds are very important in creating the right emotional environment and sense of security necessary for children to thrive. These bonds are an important part of what set families apart from residential care facilities. Residential facilities may have significant resources but the effectiveness of these resources is reduced by the environment in which it is delivered which lead to difficulties such as the bonding problems children face in these settings. While distinct from intentions it should be noted that these bonds may play a role in determining intentions: when adults develop close bonds with children this may reinforce the intentions to care. This situation raises the importance of identifying when adults form bonds which might prompt intentions, which may link back to the demographics and relatedness of the child to the potential care giver. The distinction

here between bonds and intentions is made as while adults may well be able to maintain bonds which prompt intentions even when they are not present in the household young children at least require the stable presence of an adult for resources directed towards their care to be most effective although for older children other care environment issues may be more important and this distinction is less important.

Families alone cannot provide for all of children's needs; education, health care, legal protection and social welfare services for example, require outside support and delivery. Access to services is, therefore, important in determining the quality of a given level of care. Human and financial resources facilitate access to these services but the outcome for care is also affected by the quality of services accessed. Distinct from services is the importance of links to social support. Social supports can assist in supplementing short falls in human and financial resources and linking families to services. While the conceptual framework focuses on the family it is essential to consider the families links to the community in which they operate as the ability of the family to function may well be determined to some extent by these links.

This conceptual framework can be summarised by the following figure.

Figure 1: Conceptual framework – production of care



The intentions of the caregiver are translated into care by way of the financial and human resources available – given resource availability and the caregiver’s power within the household to direct these resources towards care. This first stage represents the process that determines the level of care. At the second stage, the opportunity to form bonds and the access to services determine to what degree the level of care provided is translated into effective and efficient care. The double circle around bonds is intended to signify the diminishing importance of this factor for older children. It should be kept in mind that all of the components of the model and the connections between them could potentially be influenced by the availability of social support.

The above model is constructed in terms of intentions being translated into care. The relationship of the above factors is, however, likely to be far more complex than the linear outline provided. For example, as mentioned bonds may interact with intentions with one reinforcing the other. The model has been kept simple so as to focus discussions of the production of care. Keeping such a focus facilitates the easy identification of pathways of impact on care. Where, however, the complexity is important it will be discussed.

The model above is primarily of the care unit itself. It is important to remember that this unit’s efficiency will be determined, to a large extent, by the context in which it is operating. Access not only to services, but also to other externally provided goods, is a critical contextual factor in determining the ability of intentions to be translated into quality care. Furthermore, as mentioned, care units are not closed and networks of support, involving for example friendships, social groups and faith based organisations, can provide resources (both financial and human) when care units fall short and these supports can be critically important.

The above framework is used in this paper to assist in drawing attention to the pathways through which HIV and AIDS impacts on children. The same impacts may result from different pathways, but it is important to appreciate this so that it can be discussed to what extent impacts can be avoided, and thus be considered costs of inaction.

3. Child infections

Older children may be infected through sexual contact; younger children are infected primarily through the transmission of the virus from their mother during pregnancy, birth, or through breast feeding. Others may be infected through abuse, or possibly through contact with infected bodily fluids from adult household members whom the child is involved in providing with care. The focus of this section will be on mother-to-child transmission, while the other possibilities will be picked up in subsequent sections.

The child's risk of contacting HIV from their mother is shaped, to a large extent, by the context, in the first instance the prevalence of HIV shapes the risk of the mother being HIV positive, and then poverty and poor maternal health may influence the risk of transmission. It has been suggested that mothers who are suffering certain micro-deficiencies may be more susceptible to tearing during birth (Coutsoudis, 1999). This increases the amount of blood that comes into contact with the child during birth, thereby increasing the risk of transmission. The risk is further affected by the feeding practices followed. There is a high risk for transmission through breast milk if it is mixed with other types of food, but transmission is lower for mothers who exclusively breastfeed (Coovadia et al, 2007; Illif et al, 2005). Foreign foods aggravate the lining of the child's stomach, which allows the virus in the breast milk to transfer into the child's bloodstream more easily. Formula feeding removes the risk of HIV infection associated with breast feeding. In many poor communities although the formula decreases HIV infection rates, the loss of protection from not breastfeeding, combined with unclean water and the difficulties in sterilising equipment, can result in increased rates of other childhood illnesses and thereby increase mortality (Creek, 2006; Coovadia et al, 2007).

These contextual factors shape the risk of transmission, as well as the risk of efforts to reduce transmission. That said, by far the biggest factor in determining transmission rates is the adequacy and accessibility of the preventative services. For some time now, approaches to PMTCT have been available which, if implemented collectively, can lower infection rates to below 2%, as opposed to the near 30% without intervention (Gray and McIntyre, 2007; Mofenson, 2004). Such combination interventions are, however, typically only available to those in wealthy countries, or the very wealthy in poor countries.

PMTCT services in most highly-affected countries have poor coverage and provide a sub-standard intervention. While some governments report relatively high rates of cover, the majority either do not report, or report much less than 50% coverage (UNAIDS, 2007). As mentioned, it is, however, not only a problem of coverage but also of quality. Many of the PMTCT programmes currently offer basic regimens that potentially reduce transmission to close to 15%, which is substantially higher than the sub 2% which is now possible (UNAIDS, 2006).

When coverage rates are low, it is likely that the poor, without access to even basic antenatal services, are most likely to miss out. Again, the context plays a role in determining the risks faced. The problem may not only be reach of services across communities but also penetration within them. Recalling the conceptual model, to access services requires first intentions to care then the prioritising and directing of financial and human resources towards accessing services. Taking a mother's intentions towards her unborn child as given for a moment, access to PMTCT services requires first that they be available and second that the mother has access to and control of sufficient resources to make use of them. Some families may not have the resources to access services and as a result even when they are available they are not used or services may be provided only at certain times aggravating problems of access. Inaction in regards to PMTCT services may not, therefore, only be in terms of provision but also in terms of failures to facilitate access for under-resourced families.

Even for those who do access treatment there is a cost of inaction beyond the sub standard service. PMTCT services provide an opportunity to identify affected families. This opportunity is, however, rarely taken with very few examples of identified mother children pairs being referred for treatment or links to services which may assist children when adults become ill being made. Even if children are HIV negative if their mother is HIV positive they face higher mortality rates and providing follow up support could be highly protective (Nakiyingi et al, 2003).

If the child is infected with HIV, they face difficult and often short lives. In the absence of treatment, the large majority of infected children will die before their fifth birthday (Newell et al, 2004). Paediatric antiretroviral (ARV) treatments are, however, available

and can keep children relatively healthy for prolonged periods of time. Access to treatment, while it does not negate impact, does reduce it. Unfortunately, availability in most high-prevalence countries is poor. Paediatric treatment coverage lags far behind adult treatment coverage rates. It is estimated that only 15% of children who need ARV are currently receiving them, compared to 28% of adults in need of them (WHO, 2007).

The ill health and death of children as a result of being infected with HIV by their parents is perhaps the clearest example of a cost of inaction. Transmission rates need not be so high, given that interventions exist that can bring them down to very low levels. Once infected, mortality rates need not be so high, since ARVs could prolong children's lives. The HIV infection of a pregnant mother presents a challenge and the context, to some extent, magnifies that challenge. Despite this magnification, responses exist that could, if implemented, counter it. An adequate response can almost negate the challenge, at least in terms of the child becoming infected. Inaction in this regard results in the region of 420 000 children infected and 330 000 children dying each year (UNAIDS, 2007).

This process of magnification and failure results in a range of costs. There is the personal suffering of the child as the illness progresses and there is the suffering of the family as they experience the child's plight. In addition to the family suffering, there is the huge cost associated with caring for ill children. This cost is carried by both the home and the health system. There is the lost potential of the many children who become infected and never live to reach an age when they can contribute to the economy and society.

4. Adult illness and death

The impact of adult illness on households has been an area that has received much attention (UNAIDS, 1999; Bachmann and Booyesen, 2006). Not all of these studies have been specifically concerned with the impact on children, although some have. Drawing on these existing studies, and using the above simple conceptual framework, it is easy to identify the possibilities for impact on children. Human and financial resources may become strained; adults with caring intentions may become ill. As a result the flow of resources to children may be reduced. Moreover, the bonds may be strained as a result

of increasing illness and the resultant sense of instability, followed by the eventual death. The impact on the child is, to a large extent, determined by who is infected and the levels of human and financial resources prior to the advent of illness. If households have sufficient reserves of financial and human resources they can, to a large extent, deflect or absorb much of the impact so as to protect the child. Pre-existing poverty plays an important weakening role by diminishing family capacity to deflect impacts from children. This is different from the debate regarding to what extent risk of HIV infection and poverty are related. Here what is clear is that the level of impact resulting from an adult infection felt by the child is related to the level of poverty in which the family lives.

Serious illness of any kind has the potential to impact on households, in terms of both demand for, and supply of, resources. It increases demands on financial and human resource while decreasing the availability of both. Unless there is a sufficient excess of these resources, increases in demand will not be met or there will be a need for substitution, involving reductions in the allocation of resources to other expenditures or tasks. The concentration of HIV infections in the productive age group and the possibility of clustered infections in the household, given sexual transmission, can magnify these impacts. As a result of the age distribution of infection, those infected are often those who have the highest levels of human resources and contribute more to financial resources. When more than one such person in the household is infected, the situation becomes even more difficult. Given the sexual nature of transmission there is a very real possibility of clustering of infections within households or family.

As the HIV progresses and the severity of illness increases so the productivity of individuals decreases. This has the potential to decrease their productivity in both care and income activities. The impact on the household is then determined, in the first instance, by the relative importance of their contribution to care and income. Households, particularly in poor communities, may be supported by a single income, or a single income may make up the bulk of the household earnings, although it should be noted that the earner may not be present in the household as a result of migrant labour. Similarly, if a household is itself involved in production it may rely heavily on the productive capacity of certain household members. The potential for there to be a significant drop in household earnings is, therefore, clear.

The loss of earnings and productive capacity is linked not only to the loss of capacity of the infected and ill household member; they also require care, which demands the allocation of human and financial resources. This exacerbates the impact on children by potentially causing a further fall in the household budget, as other productive members engage in care activities; at the same time the demands on the household budget increase as a result of material care demands.

The loss of productive capacity, or the loss of earnings, has different implications depending on the starting position of the household. If a household has earnings sufficiently in excess of the basic minimum needed to meet their needs, and/or they have savings to carry themselves through a drop in income, then the impact may not be too serious in the long run. This would be an example of how a strong, in this case financially strong, household can deflect impact from the child. The standard of living of household members may fall, or the rate of savings may decline; but, if the family are still able to meet the needs of the child, then the child will not feel too great an impact from the strain on financial resources.

The best scenario, for a household affected by illness, is when earnings are sufficiently in excess of basic needs that the fall in income and the increased budget can be managed without drawing on savings. When savings are used to meet expenditures of this type there is the possibility of serious long-term negative implications as a result of reduced income potential associated with productivity loss and possible debt. For example, savings are often not held in cash and households respond to the crisis by selling assets. Selling assets which are of value but are non-productive assets (such as furniture) is hard and may affect quality of life but it limits long-term impact. It is when households are strained to the point that they sell productive assets that the impacts become long term (Donahue, 1998). Losing productive assets reduces the earning potential of households, leading to the perpetuation of difficulties and limiting the opportunities for recovery. If a household retains its level of productivity through a crisis it has more chance of recovery.

Aside from meeting needs through the utilisation of savings another option, although this is often the only option, is to reallocate from, and reduce, other expenditures. Even if the household budget remains relatively stable, the increasing costs of care may be met by reallocating money that would have been spent on other goods. This is where many of

the potential impacts on children arise, as this may involve reduced food expenditure, non-payment of school fees and reduced expenditure on non-HIV related health care – all of which could impact on children's welfare. In situations where household expenditure was low before the crisis of illness, the impact may well push consumption of basic items to dangerously low levels that can result in both short- and long-term health and education impacts for children (Foster and Williamson, 2000, Manegold and Pather, 2004). Differential intentions towards children of different sexes, ages, degree of relatedness and parentage may become important when resources are strained, leading to uneven reallocations (Case et al, 2004).

A very direct impact of tighter budgets may involve reduced consumption. Households may not be able to maintain expenditures on food and they may favour allocating what food there is to ill household members (Bachmann and Booyesen, 2006). Unless the level of food consumption prior to the reduction was sufficiently high, such a reduction can have serious implications for children. Given the high rates of malnutrition already prevalent in many high-prevalence regions, it is obvious that a further decline for many households will mean consumption will be below the necessary level to allow for proper growth and development (Richter, Manegold and Pather, 2004). Not only can this impact on the physical development of children, it can also influence their educational attainments.

Children may be withdrawn from school as a result of budget constraints in order to reduce expenditure (Foster and Williamson, 2000). Financial strains may result in reduced spending on education even if children are kept in school. This may involve less spending of text books, stationery and other related items (Bachmann and Booyesen, 2006).

Evidence has been found that some households, while increasing expenditure on health during the period of adult illness, increase it only for HIV-related problems, and that health care expenditure on other members may well fall (UNAIDS, 1999; Hunter and Williamson, 2000). Health care expenditure here includes costs in time and money of accessing services. Reduced access to services, resulting in the possibility of reduced immunisation and increased length of illness or untreated illnesses, has obvious detrimental implication for children (Hunter and Williamson, 2004).

Increasing illness will affect human, as well as financial, resources. The illness itself reduces the capacity of the infected household member to contribute these resources to the household. At the same time, care demands increase the need for human resources (UNAIDS, 1999; Bachmann and Booyesen, 2006). Unlike financial resources, it is not possible to draw on savings when there is a shortfall in the supply of human resources. This means that, unless there is an excess of human resources or the possibility of bringing in additional resources, either there will be reallocation from other activities, or the use of human resources previously not called upon because they were not considered as part of the pool. For example the labour of children or older household members may be called on when previously they would not have been considered as potential sources and such calls may not be appropriate given their age or level of development (Richter, Manegold and Pather, 2004).

If families have excess human resources, or are able to call on additional resources or services in times of crisis, they can deflect impacts away from children. If, however, families are faced with tight human resource constraints, the extra demand may well result in reallocations, such as reduced care provision to other household members, reduced production, and allocation of tasks to previously uninvolved members, such as children or the elderly. In these circumstances, the quality of care provided to children may well fall. They may be given less time, less supervision and, as a result, less protection; if children are required to take on additional household tasks, they could experience negative impacts on their health and education. In the most extreme, although not uncommon, situations, when children take on major roles such as caring for a terminally ill adult, they risk suffering and distress as well as having to drop out of school and possible HIV infection (Sherr, 2008; Richter, Manegold and Pather, 2004).

As mentioned, households are typically not closed units and resources, both human and financial, can be drawn in. These resources may be drawn from different forms of community insurance, extended family networks, community connections, or service providers such as faith-based organisations, community groups and in some settings, the state. The extent to which households are able to supplement their resources influences the extent to which children in the household are affected by the strain. Contextual factors may again be important, for example access to safety net support is at times

linked to household standing, with historically wealthier households having stronger networks and so being able to access more support (Lundberg et al, 2000).

Savings groups, or other forms of insurance, may allow households to hold on to productive assets, which can assist in recovery after the crisis. Food parcels, or other forms of direct support, may similarly assist households through the worst of the crisis, if the primary constraint is financial. If the constraint is human resources, then home visiting, assistance with child care, home-based care or hospice services may relieve some pressure on resources within the home, thus reducing the need to direct fewer resources towards children's care or draw them in to provide care. These services can mitigate the impact to some extent by providing support to the family.

The final stages of illness and the eventual death of a household member place yet more demand on household resources associated with care and then meeting funeral costs. This period is particularly important in determining long-term impact. The financial and human resource demands are often greatest during this final period of illness and following death (UNAIDS, 1999). If household income, savings or outside support, are insufficient, such crises may push households down to a level from which it is difficult to recover. As mentioned, crises responses such as the sale of productive assets can compromise recovery; entering into debt can also turn a difficult time into a long-term debilitating crisis.

With so many households in high-prevalence areas being poor prior to the infection of adult members, the possibilities for significant impact on children is obvious. Indeed, many studies, in a variety of contexts, have highlighted many of the impacts mentioned. For example, there is evidence of increased poverty (UNAIDS, 1999; Booysen, 2002) reduced food consumption (Bechu, 1998; Mutangadura, 2000) and reduced attendance at or withdrawal from school (Topouzis, 1994; Mutangahura, 2000).

These impacts tend to occur because of pressures placed on human and financial resources at the family and household level. There are, however, additional emotional impacts that result from experiencing the illness and death of someone close. On top of this, there is the potential stigma and discrimination that children may experience from those around them. Again the family can, to some extent, protect children from long-

term harm from these impacts. A supportive and protective home can help children deal with the emotional strain of the illness and death. Suffering and loss are always going to be difficult for children, a protective family in this instance may not be able to negate the impact but the family can certainly help reduce the emotional strain placed on children. Protecting children from the impacts of stigma is more difficult and requires actors outside the family, such as teachers and civil society organisations, to play a part. If children do not receive enough protection at this time, there can be long-term psychological consequences.

Given this range of potentially very serious impacts, the question is to what extent they are inevitable and to what extent are they costs of inaction. Obviously, if prevention efforts were more successful, there would not be the challenge posed by the adult infection, but even once the challenge presents itself there are steps that can be taken to respond to it and so protect children.

The most obvious inaction relates to treatment of infected adults. It is quite possible that, with appropriate quality treatment, the majority of children with infected parents could reach adulthood before their parents die. Access to treatment in highly-affected countries is improving. Some countries have reached high levels, but most in highly-affected regions are yet to reach 50% coverage (WHO, 2007). Moreover, access to appropriate second-line treatment is still problematic in many situations, limiting the increase in life expectancy.

Recent studies have found that adult treatment is associated with significant gains for children within the household (Thirumurthy, 2006). Educational indicators and health outcomes both appear to improve soon after the adult starts the programme. This would suggest that many of the costs for children are as a result of treatment inaction and that increased coverage could go a long way to reducing impacts. The impact of adult illness reaches the child largely as a result of strains on financial and human resources. Successful treatment reduces the need for care within the home as recipients become healthier therefore reducing the impact. Adults can then return to productive tasks – possibly alleviating some of the financial strain. Just as illness has the double impact of reducing financial and human resources while increasing demand on them so treatment has the double relief of increasing resources and decreasing the pressure on them.

Treatment not only reduces household costs it redistributes them away from the family and children and towards the service provider.

Seeing a parent, caregiver or any household member seriously ill is difficult and painful for a child. With appropriate support, while this time may be sad, it need not have long-term impact on the child's physical and emotional development. Extended family, community and, in some cases, state safety nets can play a role in supporting families and strengthening the capability of households to respond to challenges. It is when household capabilities are over-stretched and safety nets fail that children are at their most vulnerable to the impacts of the epidemic and predatory others. It is the interaction of the challenges posed by the epidemic with contexts of poverty and lack of access to services which leads to the worst impacts on children. Wealthy households with reserves of financial and human resources in contexts where services are available and accessible are not immune from being affected by HIV, but they are strong enough to protect their children from many of the impacts of adult infection. If it is possible for the actions of these households to protect children then the impacts which children experience as a result of adult illness are results of inaction.

The focus here, however, is on the inaction of external actors and the question is can these actors take steps to strengthen families so that they may protect children from impacts? In terms of treatment, the answer would appear to be yes. In terms of strengthening family financial resources cash transfer intervention appear to provide a very promising means of support in this context (Adato, 2008). While the evidence is not as strong, evaluations of support interventions suggest that they can also be provided to assist with shortfalls in human resources (Wakhewya and Dirks, 2008). Families can therefore be strengthened and once strengthened they can increase the protection they offer children and thereby reduce the impacts children feel.

5. The consequences for care of adult death

The loss of an adult member of the household or from within the family network can result in a range of impacts, from relatively minor to very serious, for children in that household. If the household member lost is not highly involved in children's care and is not a major contributor to household financial resources or productive activities, then

the impact is limited. If, however, the lost household member was the primary income earner or caregiver or both, then the impacts on children are potentially very great. Further, the possibility of multiple deaths within the same household or family network, given the clustering of infections, should be kept in mind. It should also be kept in mind that an adult not present in the household may be an important contributor to household financial resources and their death may have similar impacts to the loss of a major earner who was living in the household.

The death of an adult who is the primary earner or caregiver can affect almost every aspect of the simple model discussed above. Intentions, power relations, financial and human resources and opportunities to form bonds may all be affected. These may result from rearrangements within the household or from children moving to other households.

Following the death of an adult household member, the care arrangements may change. If that adult was the primary caregiver, then a new caregiver will have to assume this role. If the household has sufficient, and willing, human resources to offer this, the children may well stay where they are, if not they may move.

If the adult who dies was the primary earner in the household, and the household is not able to maintain itself following their death, the children may also need to be moved. As a result, some households, even if they have the human resources to care for children, are unable to continue doing so. The impact of dealing with the illness and death can place households on a downward trajectory. As mentioned, this is particularly the case if productive assets are sold during the crisis to meet income needs, or high levels of debt are accrued. While household collapse may be a result of such a downward trajectory it may also be used as a response even when not forced.

If the household member lost is a parent, the impact may be very large. The loss of a mother is likely to have the greater impact on children's care. It has been observed, in a variety of contexts, that when a father is lost the children are likely to stay with their mother (see for example Desmond and Desmond, 2005). If, however, the mother dies, many children do not live with their father. It is important to note the context here. Many children across Africa do not live with both of their parents, even if their parents

are alive. This is particularly clear with regard to fathers; children and fathers are often separated. In South Africa at least this is more often the case for poorer households and is probably related to economic coping mechanisms linked to the migrant labour system (Desmond and Desmond, 2005). The tendency of children to stay with their fathers if their mothers are dead or alive is, however, highly context specific and it is not safe to assume that the Southern African pattern will always be observed (Hosegood, 2008).

The above suggests that the impact on the care of children living in a household that has suffered an adult death will be determined by who died, the capacity and willingness of the household to manage this loss and the response of those around them. This is true whether children stay in the same household or leave it.

When children remain in the same households in which they lived prior to the loss, there are still a number of impacts. If the loss is of a primary caregiver, the replacement caregiver may or may not have the same intentions towards the child. The loss may also influence the power relations in the household, making it easier, or possibly harder, to direct resources to children.

The adult loss may well also negatively affect the stock of human resources in the household, particularly if the adult was the primary caregiver. If a new caregiver is needed, they may not have the same skills and knowledge as the lost caregiver. The caregiver may have lower human resources if care responsibilities are extended to much older or younger members in the household. Older individuals may not be as physically able to provide care and, given recent increases in literacy, they are less likely to be literate, which has implications for children's education (Richter and Desmond, 2008). Younger caregivers may not possess the necessary knowledge or experience. This is often discussed in relation to child-headed households, but competency and experience do not magically accrue when the carer reaches 18 years of age. The situation may even be worse for caregivers who are young but not children, as children may be able to access more support than young adults (Richter and Desmond, 2008).

In terms of financial resources the household may be left poorer, and possibly on a downward trajectory (Boysen, 2002; Donahue, 2005; UNAIDS, 1999). This may lead to the start, continuation, or amplification of crisis responses, which may have begun

during the period of illness, with negative implications for the children. These include reduced consumption and expenditure on food, clothing, health and education, with all of the associated impacts for children and possibly with gender and age bias. This situation can be further aggravated if asset-stripping occurs. When surviving family members of the adult who has died claim rights to property, and/or assets, this can further weaken a household's productive capacity and increase the probability of collapse. The likelihood of asset-stripping is shaped by the context in terms of who died and the cultural practice surrounding the death of such a person. Again, the extent to which the impacts of reduced financial resources are felt is a function of the degree to which the household has resources, or access to supportive resources, to maintain itself through the period of crisis and recover.

Following the death of a household member, if the household is no longer able or willing to provide care for the children they face being moved. Of course, it is possible that they could be moved to a household with more human and financial resources, strong caring intentions and adequate opportunity to form bonds. The contexts in which the epidemic is most prevalent, however, means that this is not often the case. The context is also not static and as the epidemic progresses the capacity of networks may be drained by continuing demands.

There are only a few countries in highly-affected regions where there are social security payments for the support of children. This means that children increase the costs of households without typically increasing the income. Again the impact, to some degree, is determined by the extent to which the household entered has excess resources. If the household is already finding it difficult to meet its members' needs, the absorption of additional members may impact on the welfare of all household members, including children who were previously living there. Faced with financial pressures, households will have to make expenditure decisions that, again, have the potential to negatively impact on the welfare of children in the household. The situation is, however, somewhat different from the pre-death scenario. Firstly, on entering a new household, it may be difficult to form the necessary bonds with the adults in the new household. This may be particularly so when children move into larger households. This possibility is important, as children need to feel secure and supported so that they may recover from the strain of their loss and move. Secondly there is the possibility that the intentions towards the

children may not be as strong as they were in their previous home. There is a possibility that the moved children will be discriminated against when allocating scarce resources. This can occur in terms of both human and financial resources.

When children are moved, impacts may result from strained financial and human resources. They may, however, also result from discrimination in the allocation of resources or because resources are less effective, as bonds are weak or not formed. The observed impacts on children may be very similar but identifying the pathway to impact has implications for the design of responses. Responses to strengthen bonds may be very different from those needed to increase resource levels.

The above impacts manifest themselves in poor performance and outcomes for children who are moved and, at times, children living in households that take them in. As many of these impacts come about as a result of a lack of financial resources, it has sometimes been difficult to distinguish the poor outcomes for orphans from those of other poor children (Arnab and Serumaga-Zake, 2006; Case et al, 2004). Orphaning, for the reasons discussed, increases the risk of children being poor, but does not define who is and is not poor. If orphan children come from families with strong safety nets, they may well not fall into poverty and may fare better in terms of a range of outcomes than children who are poor. In contexts of high poverty the risks from increased financial strain are greater. The marginal impact of expenditures on children is diminishing. An identical decrease in expenditure has very different implications if the starting expenditure is low than if it were high. The impacts of orphaning are, therefore, more likely to be seen in contexts of poverty as expenditure levels are already low. That outcomes for orphans are difficult to distinguish from other poor children is testament to the pre-existing depth of poverty and its affect on many children.

The important question in this paper is not whether orphans are worse off than non-orphans, but if they are worse off than they would have been if there had been better interventions. Before moving on to this question, it is still worth noting an impact which is more specific to orphans and other children who have lived through the loss of their primary caregiver.

One impact that is specific to orphans is the experience of parental death, although very similar impacts may occur as a result of the loss of any primary care giver. Children who have experienced a loss, particularly of someone close to them, need support through this time. The extent to which they receive appropriate support in this regard has important implications. Evidence suggests that, if children do not receive adequate support through such potentially traumatic times as prolonged parental illness and death, they may suffer long-term damage, reducing their life chances, particularly if they are very young at the time of the crisis.

It has recently been strongly argued that, if inadequately supported through such difficult times, young children's brain circuitry can be negatively affected and, as future circuitry is based on past circuitry, this can have a major impact on children's long-term development. The National Scientific Council on the Developing Child in the US has outlined the role childhood stress can play in neurological development (2007). They outline how the brain is built up over time as a result of an interaction between genetics and experiences of the environment and as part of the environment stress can play a role in this process. The Council identify three types of stress: positive stress, tolerable stress, and toxic stress. Positive stress relates to responses triggered by a variety of common experiences, such as meeting new people. While stressful for children such experiences are part of the developmental process. Then there is tolerable stress, which is associated with stress responses that could potentially be damaging to the architecture of children's brains. It is, however, referred to as tolerable, as it can be relieved by supportive adults before doing any long-term harm. Toxic stress differs in that it is prolonged, as buffering support is absent or inadequate. Research has suggested that prolonged activation of stress responses in children can have serious consequences, as they disrupt the architecture and chemistry of the brain – the younger the child the more serious the consequences. As a result, children may suffer learning and memory impacts, as well as a variety of impacts on health in the present and over the course of their lives. While such research has not been conducted in the context of HIV and AIDS, there is evidence that the situations children live through can have an impact on their psychological and cognitive development. The learning group 1 paper by Sherr (2008) reviews the literature on these issues.

There is also the possibility that children will leave the household in which they were living and not move to another; they may end up living on the street or in residential care. Both of these settings have negative implications for children. The street means less, or no, access to education and health services, as well as no protection. Group residential care may do better in terms of material resources but the difficulty in forming bonds can have long-term developmental implications for children. As mentioned previously the impact of group residential care will likely differ with children's age with young children being more vulnerable to negative outcomes.

The above discussion has highlighted a number of impacts, as well as different pathways through which these may arise. The question again becomes to what extent these impacts are costs of inaction. Following on from the previous section, better prevention and treatment programmes would avoid many of these costs. It is, however, important to ask to what extent the costs are inevitable once the death has been experienced.

In terms of classing these costs as costs of inaction once the death has occurred, the situation is somewhat more complicated than in the previous sections. Those impacts that result from financial constraints are obviously costs of inaction. Those that result from there being fewer, or lower quality, human resources could, to some extent, be addressed by programmes that seek to support caregivers and so are costs of inaction. There is no shortage of labour in most high prevalence context so human resource constraints would mostly relate to accessing or skilling human resources. The impacts that result from new caregivers having lower levels of caring intentions towards children, or the power relationships changing leading to fewer resources being devoted to children, or if children have fewer opportunities to form secure bonds, are more difficult to classify. They are costs of family inaction. They could be considered costs of outsiders' inaction, in so far as interventions could reduce these family inactions. There is, however, limited evidence of the effectiveness of outside services in influencing such actions as discrimination, although there are some promising approaches. In terms of discrimination in allocations, arguably, if more resources were provided to households, even if children were discriminated against they would likely receive more than they would have if the additional resources were not provided.

6. Death outside the family

The impacts of HIV and AIDS on children are broader than the impacts on children in households directly affected by illness, death and absorption of children. The failure to prevent infections, and to treat those infected, also has implications for the provision of services. In terms of how this impact on services affects children, the impact on health and education services are central.

In the context of high HIV prevalence health services suffer the double impacts of increased demand and decreased supply (Shisana et al, 2003). HIV and AIDS increase the level of illness in societies and, as people seek treatment, this increases the demand on health services. At the same time, the personnel providing services are themselves at risk of infection and resultant illness and death. The health sector relies heavily on skilled professionals and in many countries affected by the epidemic there was already a shortage of skills prior to this impact (Shisana et al, 2003). Given this reliance and existing shortages, lost staff are difficult to replace and service levels may well decline. Children not directly affected by HIV and AIDS in the home may receive less or lower quality health services as a result of the epidemic. For example, many paediatric wards in highly-affected areas are struggling with HIV-infected children, making it difficult for other children to access care (Govender, Richter and RoCHAT, 2006).

The education systems are similarly reliant on professional staff and losses here may also affect service levels. The education system will, however, face a possible decline in demand, as population growth slows as a result of the epidemic (Peltzer et al, 2005). In countries yet to reach universal provision, this decline in population may be outweighed by increases in enrolment and so demand will continue to increase at a time when supply becomes more strained. Again, children not directly affected suffer as a result of the epidemic – this time by way of increasing absenteeism and loss of teachers.

7. Aggregate impacts

In high prevalence settings, the number of children affected can be very high. With millions of adults infected, millions of children will experience adult illness within their homes and the loss of their parent, caregiver or other adults to whom they are close. As

discussed above, illness and death within the household can result in a range of impacts on children including decreased access to education and health services, increased poverty and at times even their demise. In high prevalence contexts, some of these impacts may be so common as to be observable in national level statistics.

The direct impact of HIV infections alone can increase infant and child mortality, or at least slow down progress in this regard (UNICEF, 2008). The extent of the impact, as with other impacts, is determined by the prevalence, the context and the level of effort to respond; thus it will be very country specific. The impact on child health, as mentioned, will be further aggravated by increased pressure on the health system and spillover effects from formula feeding programmes.

The loss of mothers and/or fathers in high prevalence regions is frequent enough to see a large increase in the numbers of biological orphans reported in national surveys (Hunter and Williamson, 2004; UN, 2004). Moreover, in high prevalence settings, the movement of children and the resultant changes in household structure may also be observable in national surveys, although identifying to what extent these changes result from HIV and AIDS is difficult (Hosegood, 2008; Richter and Desmond, 2008).

As a result of decreased fertility and increased child mortality, a slowing down, or even a decrease, in school enrolment may be observed (Peltzer et al, 2005). This decline in demand may be further added to by increased drop out, higher rates of absenteeism and the delaying of enrolment associated with financial and human resource constraints within the household.

Impacts on the health, education and development of children may well have long-term economic implications. Few studies of the macroeconomic impact of HIV and AIDS have considered these. The impacts of increased expenditure on health services, and to a lesser extent welfare services, have been considered, but the loss of children's potential has not been given much attention. The impacts of HIV and AIDS on the economy have focused mainly on loss of productivity and the increased expenditure mentioned. There is much uncertainty regarding even these factors, so projections tend to have a short time frame. The costs to the economy of present educational and health impacts on

children will only be felt in many years time. When impacts on the economy are only considered for the short term, these costs are left out.

Studies that have considered the long-term economic implications have suggested that these could be serious. Bell et al argue that the impact will be cumulative; children will suffer an impact on their education, then in the next generation these children's children will also suffer and so on and so on (2006). This is a controversial argument but it does highlight the importance of considering these long-term costs to the economy. Further, it need not stop at educational costs, as research shows how child health affects adult health and parent health child health (Victoria et al, 2008). As a result of these links, the suffering of children today will affect the health of the next generation.

8. Summary and conclusions

This paper has attempted to identify the pathways of impact of HIV and AIDS on children so as to be clear on all the possible points of intervention. It is apparent that the impacts felt by children are not simply unfortunate, inevitable consequences of this epidemic. A strong and supported family with good access to quality services can deflect almost all of the impact. This suggests that the bulk of the impacts observed are costs of inaction. What is more is that it suggests that the impacts on children associated with HIV and AIDS are to a large extent costs of inaction in terms of poverty. Poverty plays a major role in weakening financial and human resources within households and family networks. It is against this backdrop of weakened families that impacts find their way through to children.

There are, however, two arguments that may be used to counter the assertion that the bulk of impacts are costs of inaction:

- It is not possible to reach people.
- There are not the resources to respond.

If you cannot reach people with support or cannot find the resources to respond, then impacts can hardly be called the costs of inaction when actions are not feasible. It would

be akin to suggesting that they are costs of inaction because infected adults are not given the cure.

While there is merit in both of these arguments they are limited. For example, regarding treatment services, a number of countries in high prevalence regions have shown that services can be effectively rolled out and are approaching universal provision in some instances (WHO, 2007). Moreover, many opportunities for efficient delivery are missed. PMTCT services are offered but mothers are not enrolled in treatment programmes. HIV-positive adults are identified, but their partners and families are not. Family-based services provide a clear opportunity to increase coverage in a manner that will assist in reducing impacts on children. The provision of services and household support is a challenge, but a growing number of examples worldwide suggest that more can be done. So long as this is the case, the impacts of HIV that could be avoided can be called the costs of inaction.

The argument that there are not the resources is a difficult one. The impacts that are discussed here relate to the violation of children's basic rights: rights that States, as the final duty bearers, have committed themselves to protect. This, however, would be true for impacts from poverty and other diseases that could all largely be avoided.

The rights argument should be enough to dispense with the resources excuse as often the resources are there but they require redirection. Unfortunately, this is often not the case, which is why so many children continue to suffer as a result of AIDS and other challenges. It may, however, be useful to link the rights discussion to a discussion of the growing costs of inaction. Doing nothing may not only violate rights it may be the more costly option.

9. References

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